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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/784,490	02/23/2004	Frank J. Schauerte	DP-303087	2198

7590 09/21/2005
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EXAMINER

LEE, PATRICK J

ART UNIT PAPER NUMBER

2878

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/784,490	Applicant(s) SCHAUERTE ET AL.	
	Examiner Patrick J. Lee	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-25 is/are allowed.
- 6) ☒ Claim(s) 1,3,26,27 and 33 is/are rejected.
- 7) ☒ Claim(s) 2,4-10 and 28-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Label "38" from figure 2 is not described in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

2. Claims 31-32 are objected to because of the following informalities:

A typographical error dealing with claim numbering appears in regards to claims 31-32 on line 4 of page 20.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3, 26-27, & 33 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6,797,933 B1 to Mendis et al.

With respect to claim 1, Mendis et al disclose a testing structure for an APS imaging sensor comprising: a timing and control unit as a controller (see figure 6); and a pixel array, in which each pixel is connected to a test voltage selection (see figure 4) applying a voltage (V1 or V2) through reset signal (V_{rst}) as a sewer and where each pixel has an output node (V_{OUT_PIXEL}). The testing is done so that the output of pixel is compared to an expected output (see column 11, lines 58-65; column 12, lines 1-4).

With respect to claim 3, Mendis et al disclose transistor (M3) as a read gate for receiving charge from photodiode (D_F) in response to read signal (V_{row}).

With respect to claim 26, Mendis et al disclose a testing structure for an APS imaging sensor comprising the steps of: applying a voltage (V1 or V2) through reset signal (V_{rst}) as outputting a first electrical signal to each pixel (see figures 4, 6); outputting a second electrical signal (V_{row}) to read an output signal representing the injected charge; and timing and control unit (see figure 6) as a controller for comparing

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the output signal to an expected output signal to test the operation of the pixel (see column 11, lines 56-85; column 12, lines 1-4).

With respect to claim 27, Mendis et al disclose an application of a third signal (V_{row}) while outputting of first signal (V_{rst}) for injecting a signal.

With respect to claim 33, Mendis et al disclose the pixels arranged in rows and columns (see figure 6).

Allowable Subject Matter

5. Claims 11-25 are allowable over the prior art.

6. Claims 2, 4-10, & 28-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

With respect to claim 2, Mendis et al does not disclose nor suggest that photodiode (D_F) operates as a collect well associated for receiving the injected charge in response to a collect signal. As a result, claim 2 is objected.

With respect to claim 4, Mendis et al does not disclose nor suggest a drain and source coupled so that the read signal is modulated by the injected charge at the gate of the transistor. As a result, claim 4 is objected.

With respect to claim 5, Mendis et al does not disclose nor suggest the use of a dump gate. As a result, claim 5 and dependent claim 6 are objected.

With respect to claim 7, Mendis et al does not disclose nor suggest the use of a plurality of flip-flops and a plurality of buffers to transfer the injected output signal from the pixels to the controller. As a result, claim 7, and dependent claims 8-10 are objected.

With respect to claim 11, Mendis et al does not disclose nor suggest the use of a dump gate. As a result, claim 11 and dependent claim 12-19 are allowed.

With respect to claims 20 & 25, Mendis et al does not disclose nor suggest that transistor (M3) is connected to a read will that receives an injected charge in response to application of the read signal and the absence of a collect signal. As a result, claims 20 & 25 and dependent claims 21-24 are allowed.

With respect to claim 28, the step of outputting a fourth electrical signal is not disclose nor suggested by the prior art. As a result, claim 28 and dependent claims 29-32 are objected.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patrick J. Lee whose telephone number is (571) 272-2440. The examiner can normally be reached on Monday through Friday, 8:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patrick J. Lee
Examiner
Art Unit 2878

PJL
September 12th, 2005


Stephone B. Allen
Primary Examiner